



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

5711-17

NOTICE OF ALLOWANCE AND ISSUE FEE DUE

1M32/0720

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APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP ART UNIT	DATE MAILED
First Named Applicant	197178,603	10/26/98	024 EASTLER, S	1742 07/20/99

TITLE OF INVENTION MORANDO, 35 USC 154(b) term ext. = 0 Days.

JET COLUMN AND JET COLUMN REACTORS CROSS REMOVING CROSS DILUTING PUMPS

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEE DUE	DATE DUE
3	NOV-104-E	265-227,000	NO7 UTILITY	YES	\$605.00	10/20/99

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED.

THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.

HOW TO RESPOND TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.
If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
- B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

- A. Pay FEE DUE shown above, or
- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

II. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give application number and batch number.
Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PATENT AND TRADEMARK OFFICE COPY

Notice of Allowability

Application No.

09/178,603

Applicant(s)

Morando

Examiner

Scott Kastler

Group Art Unit

1742

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.

☒ This communication is responsive to amendment filed on 7-6-1999.

☒ The allowed claim(s) is/are 1-22, 24, and 25.

☐ The drawings filed on _____ are acceptable.

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE **THREE MONTHS** FROM THE "DATE MAILED" of this Office action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.

☒ Applicant MUST submit NEW FORMAL DRAWINGS

☐ because the originally filed drawings were declared by applicant to be informal.

☒ including changes required by the Notice of Draftsperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No. _____.

☐ including changes required by the proposed drawing correction filed on _____, which has been approved by the examiner.

☐ including changes required by the attached Examiner's Amendment/Comment.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

☐ Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any response to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

☐ Interview Summary, PTO-413

☐ Examiner's Amendment/Comment

☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material

☐ Examiner's Statement of Reasons for Allowance

**SCOTT KASTLER
PRIMARY EXAMINER
ART UNIT 1742**

09/178603

NOTICE OF DRAFTSPERSON'S
PATENT DRAWING REVIEWThe drawing(s) filed (insert date) 10/26/98 etc:A. ☐ approved by the Draftsperson under 37 CFR 1.84 or 1.152.B. ☒ objected to by the Draftsperson under 37 CFR 1.84 or 1.152 for the reasons indicated below. The Examiner will require submission of new, corrected drawings when necessary. Corrected drawing must be submitted according to the instructions on the back of this notice.

1. DRAWINGS: 37 CFR 1.84(a): Acceptable categories of drawings:

Black ink. Color drawings are not acceptable until petition is granted.

Pencil and non black ink not permitted: Fig(s) 12, 13

2. PHOTOGRAPHS: 37 CFR 1.84 (b)

Full-tone set is required. Fig(s) _____
Photographs not properly mounted (must use bristol board or photographic double-weight paper). Fig(s) _____
Poor quality (half-tone). Fig(s) _____

3. TYPE OF PAPER: 37 CFR 1.84(c)

Paper not flexible, strong, white, and durable.

Fig(s) _____

Erasures, alterations, overwritings, interlineations,

folds, copy machine marks not accepted. Fig(s) _____

Mylar, velum paper is not acceptable (too thin).

Fig(s) _____

4. SIZE OF PAPER: 37 CFR 1.84(f): Acceptable sizes:

21.0 cm by 29.7 cm (DIN size A4)

21.6 cm by 27.9 cm (8 1/2 x 11 inches)

All drawing sheets not the same size.

Sheet(s) _____

Drawings sheets not an acceptable size. Fig(s) _____

5. MARGINS: 37 CFR 1.84(g): Acceptable margins:

Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm

SIZE: A4 Size

Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm

SIZE: 8 1/2 x 11

Margins not acceptable. Fig(s) 12, 13, 14

Top (T) _____ Left (L) _____

Right (R) _____ Bottom (B) _____

6. VIEWS: 37 CFR 1.84(h)

REMINDER: Specification may require revision to correspond to drawing changes.

Partial views: 37 CFR 1.84(h)(2)

Brackets needed to show figure as one entity.

Fig(s) _____

Views not labeled separately or properly.

Fig(s) _____

Enlarged view not labeled separately or properly.

Fig(s) _____

7. SECTIONAL VIEWS: 37 CFR 1.84 (h)(3)

Hatching not indicated for sectional portions of an object.

Fig(s) _____

Sectional designation should be noted with Arabic or

Roman numbers. Fig(s) _____

8. ARRANGEMENT OF VIEWS: 37 CFR 1.84(i)

Words do not appear on a horizontal, left-to-right fashion when page is either upright or turned so that the top becomes the right side, except for graphs. Fig(s) _____

9. SCALE: 37 CFR 1.84(k)

Scale not large enough to show mechanism without crowding when drawing is reduced in size to two-thirds in reproduction.

Fig(s) _____

10. CHARACTER OF LINES, NUMBERS, & LETTERS: 37 CFR 1.84(i)

Lines, numbers & letters not uniformly thick and well defined, clean, durable, and black (poor line quality).

Fig(s) 12, 14

11. SHADING: 37 CFR 1.84(m)

Solid black areas pale. Fig(s) _____

Solid black shading not permitted. Fig(s) _____

Shade lines, pale, rough and blurred. Fig(s) 12, 13, 14

12. NUMBERS, LETTERS, & REFERENCE CHARACTERS: 37 CFR 1.84(p)

Numbers and reference characters not plain and legible.

Fig(s) 12, 14

Figure legends are poor. Fig(s) _____

Numbers and reference characters not oriented in the

same direction as the view. 37 CFR 1.84(p)(1).

Fig(s) _____

English alphabet not used. 37 CFR 1.84(p)(2)

Fig(s) _____

Numbers, letters and reference characters must be at least

.32 cm (1/8 inch) in height. 37 CFR 1.84(p)(3)

Fig(s) 12, 14

13. LEAD LINES: 37 CFR 1.84(q)

Lead lines cross each other. Fig(s) _____

Lead lines missing. Fig(s) _____

14. NUMBERING OF SHEETS OF DRAWINGS: 37 CFR 1.84(i)

Sheets not numbered consecutively, and in Arabic numerals

beginning with number 1. Sheet(s) _____

15. NUMBERING OF VIEWS: 37 CFR 1.84(u)

Views not numbered consecutively, and in Arabic numerals,

beginning with number 1. Fig(s) _____

16. CORRECTIONS: 37 CFR 1.84(w)

Corrections not made from prior PTO-948

dated _____

17. DESIGN DRAWINGS: 37 CFR 1.152

Surface shading shown not appropriate. Fig(s) _____

Solid black shading not used for color contrast.

Fig(s) _____

COMMENTS

REVIEWER JDDATE 7/16/99TELEPHONE NO. 308-0011ATTACHMENT TO PAPER NO. 7